Wilson, Erika

From: John Blair [jblair@ksu.edu]
Sent: Wednesday, March 27, 2013 9:57 AM
To: Lear, Gary
Subject: RE: KDHE presentation

I understand, Gary. I think it may still have some bearing on local measurements, though. Below is some additional info I sent to our KSU group to prepare for the call later this morning...

Based on Tom's presentation materials, I assume that he will argue that (a) measurements at Konza are unduly influenced by on-site burning activities and/or (b) the costs of continuing to make ozone measurements at Konza (and dealing with the regional air-quality issues that points to) are too high.
There also seems to be some implied risk that this could lead to a more restrictive smoke management policy, and more limited burning in the Flint Hills, which I am also concerned about. I did some additional analysis of the Konza CASTNET ozone data, based on data freely available on line combined with recorded burn dates at the Konza site. I also found other relevant regional ozone data on the web, and was given some additional information from the EPA that may be relevant to this discussion. I've attached a couple of files here, and will summarize so that you are aware of these issues before our meeting tomorrow. I apologize for getting this to you so late, but I wasn't sure about some of this until Tom provided his presentation materials.

With respect to the "regional representativeness" of Konza and potential impacts of on-site burning on CASTNET-measured ozone levels, I'm attaching an Excel file that provides data on measured 8-hr average ozone levels above the 75 ppb standard (Konza Ozone 8-Hour Daily Max Values.xls). I've highlighted all 8-hr ozone values >75 ppb in yellow, and those that could be associated with Konza burning in red. To summarize the results of that analysis:

Of the 2246 total 8-hr values generated since 2002, only 43 (1.9 %) exceeded the federal limit of 75 ppb.
Of those 43 values >75 ppb, only 10 were associated with local burning on Konza (though other regional burning could also have contributed) Of the remaining 33 values >75 ppb that were not associated with Konza burning, 29 (88%) were at times of the year when there was NO major prescribed burning in the Flint Hills (June-Sept) In total, this suggests that Konza is generally representative of regional ozone levels, and that sources other than spring burning are contributing to levels >75 ppb during other times of the year.

To further show that Konza is generally representative of regional ozone levels, I've attached an Excel file with the ozone Design Values (that's a 3-year moving average of 4th highest 8-hr ozone values at a site) from
2002-2011 for other Kansas ozone monitoring sites
(Ozone_DesignValues_20092011_FINAL_08_06_12.xls). This file shows that many other sites have design values in the range of 70-75 ppb, and the Konza does not appear to be an outlier. I also attach a PowerPoint file that shows the
2011 Ozone Design Values for all monitoring stations in the state.

John

-----Original Message-----
From: Lear, Gary [mailto:Lear.Gary@epa.gov]
Sent: Wednesday, March 27, 2013 8:50 AM
To: John Blair

Subject: RE: KDHE presentation

John, On further examination it appears that the power plant in Pottawatomie County has significantly reduced their emissions from the time of the 2008 National Emissions Inventory (the most recent) through 2011 and this map may not be accurate for emissions now. I will try to get a better handle on what the emission level is currently but you may want to hold off putting this out there until then.

_____

From: Lear, Gary
Sent: Tuesday, March 26, 2013 8:42 PM
To: John Blair
Subject: RE: KDHE presentation

One additional map that you might be interested in: the NOx emissions by county with ozone design values. I think it's clear that Konza is actually quite representative of the region and shows that NOx, not burning, is causing the exceedances. You can share this map.

Gary Lear
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Washington DC

-----Original Message-----
From: John Blair [mailto:jblair@ksu.edu]
Sent: Tuesday, March 26, 2013 7:31 PM
To: Lear, Gary
Subject: Re: KDHE presentation

Gary,

This information will be very useful, and complements some additional quick analyses I've done with burn dates and ozone levels at the Konza CASTNET site. I won't share the PowerPoint with others, but it will be useful to point out that I've heard hat other analyses of the data also indicate that Konza is actually fairly representative of the region. I'll let you know how the meeting went once we get through that tomorrow.

John

----- Original Message -----
From: "Gary Lear" <Lear.Gary@epa.gov>
To: "John Blair" <jblair@ksu.edu>
Sent: Tuesday, March 26, 2013 6:12:53 PM
Subject: RE: KDHE presentation

Thanks John, this does clear up the representativeness issue pretty well. It appears that the power plant in Pott. County is the largest single emitter of NOx in the state and the county as a whole emits around 20% of total emissions from Kansas. I am sure KDHE is concerned that the boundary designation would extend from the insignificant sources in Riley to Pott.

I've attached a map showing the "Design Values" (the 3-year average of the 4th highest ozone daily maximums for each year) for other regulatory monitors in the state in 2011. I've also attached an XLS of the design values for previous years. You can share these if you'd like.

Also, a ppt looking at the influence of burn season on Konza ozone.

Although KDHE has seen this I'd prefer that you not distribute it too far, as they will likely blame others in EPA for distributing it.

Gary Lear
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-----Original Message-----
From: John Blair [mailto:jblair@ksu.edu]
Sent: Tuesday, March 26, 2013 5:51 PM
To: Lear, Gary
Subject: KDHE presentation

Gary,

In response to a request from KSU for some pre-meeting material from KDHE, we were provided with the following PP presentation, which I assume he will elaborate on tomorrow. I thought it might be useful for you to see where he
is heading with his arguments. Please keep this confidential for now. I
plan to ask about non-attainment at other Kansas monitoring sites in the month of April over the same 10 year interval, and about high ozone levels recorded at Konza in months other than April, when there was no local burning (see comments on attached slide). I don't think the "representativeness" of the site is the main issue, though...

John Blair